



# Insect Diagnostic Laboratory

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## Snow-Fleas

(in the Order Collembola; Springtails)



*Left:*

A snow-flea greatly enlarged  
(actual size approx. 1/16 inch).

*Right:*

Snow-fleas at the base of a tree.

The insect nicknamed the "snow-flea" is not a flea at all, but instead is a species of springtail that may occur in very large numbers on the snow. In some instances they can be so numerous as to color the snow black. In British Columbia there is a minute yellow springtail that is said to cover the snow with a "carpet of gold."

The snow-flea *Achorutes nivicola* Fitch was written about as early as 1847 by Asa Fitch. He wrote of it:

"This is an abundant species in our forests in the winter and fore part of spring. At any time in the winter, whenever a few days of mild weather occur, the surface of the snow, often, over whole acres of woodland, may be sprinkled more or less thickly with these minute fleas, looking at first sight, as though gunpowder had been there scattered. Hollows and holes in the snow, out of which the insects are unable to throw themselves readily, are often black with multitudes which here become imprisoned. The fine meal-like powder with which their bodies are coated, enables them to float buoyantly upon the surface of water, without becoming wet. When the snow is melting so as to produce small rivulets coursing along the tracks of the lumberman's sleigh, these snow-fleas are often observed, floating passively in its current, in such numbers as to form continuous strings; whilst the eddies and still pools gather them in such myriads as to wholly hide the element beneath them."

Later he included an additional note: "In the early spring the buckets and troughs of the manufacturer of maple sugar are often thronged with these insects."

Although springtails are very common insects and often very abundant, they are seldom observed. Their small size and the fact that they are often found in concealed situations keeps them out of view for most of us. Springtails occur in leaf mold, damp soil, under bark, in decaying logs and in fungi. A few are found on water. Most species are believed to feed on organic debris.

The "snow-fleas" need not be of concern to homeowners, as they do not cause any damage. Their abundance and habit of crawling or "jumping" all over the place attracts attention, especially when they are contrasted against the white background of the snow. This is one of the few insects that occur in the adult stage during the wintertime. It is a curiosity more than anything else and is of interest to the naturalist as well as the scientist.